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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,183	07/19/2001	Douglas Lawton Youngblood	SE-1698-TL (50110)	9094

27975 7590 12/01/2005

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EXAMINER

BRINEY III, WALTER F

ART UNIT

PAPER NUMBER

2646

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/909,183

Applicant(s)

YOUNGBLOOD, DOUGLAS
LAWTON

Examiner

Walter F. Briney III

Art Unit

2646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 7-11, 20-24 and 27-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 12-19, 25, 26 and 35-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 19 July 2001.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I in the reply filed on 23 May 2005 is acknowledged. The traversal is on the ground(s) that the restriction between the combination set forth in claim 1 and the subcombination set forth in claims, inter alia, 7 and 27 does not comply with the provisions of the MPEP. Specifically, the applicant alleges that claim 7 is dependent on claim 1, and thus, includes the limitations of claim 1. This is not found persuasive because the applicant is seeking a patent on two inventions that are patentably distinct and independent. With respect to the first invention, claim 1 recites a combination SLIC and current limiting circuit. By not reciting the details of the current limiting circuit in claim 1, the applicant is submitting that the combination is not dependent on the details of the current limiting circuit for patentability. With respect to the second invention, claim 27 recites only the details of the current limiting circuit. By reciting only the details of the current limiting circuit, the applicant is submitting that the current limiting circuit is independently allowable. MPEP § 806.05(c)(III) explicitly details the restriction practice applicable to handling multiple inventions as claimed in the instant application. Specifically, claim 1 corresponds to an AB_{br} claim, claim 7 corresponds to an AB_{sp} claim and claim 27 corresponds to a B_{sp} claim.

In review of the claims drawn to the combination, it is submitted that claim 37 recites essentially the same subject matter as claims 2 and 3 while claims 38 and 39 recite essentially the same subject matter as claims 4 and 5. As claims 2-5 are to be

treated commensurate with the applicant's election of Group I, it is noted that claims 37-39 will be treated as part of Group I.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claims 1-6, 12-14, 15-19, 25, 26 and 35-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Pasetti et al. (US Patent 5,596,637).**

Claim 1 is limited to a *subscriber line interface circuit (SLIC) for a subscriber loop*. Pasetti discloses a power dissipation manager circuit for an interface device feeding a subscriber telephone line. See Abstract. As the interface device of Pasetti drives a subscriber telephone line, it is submitted that it corresponds to a "SLIC" as recited. As seen in figure 2 of Pasetti, the interface includes a "pair of output amplifiers" (4') and (5'). The pair of amplifiers is connected to a "subscriber loop" comprising tip and ring lines (2') and (2''). The output currents from the pair of amplifiers are limited by the "current limiting arrangement" comprising common mode current detector SCM, comparators COMP A and COMP B and switch block (8'). See column 9, lines 65, through column 10, line 41, for a description on the operation of the current limiting arrangement in conjunction with the operation of the amplifier pair. As seen in figure 2,

"at least one programmable current limit" exists (I_{lim1}/I_{lim2}). The reference currents in figure 2 are considered to be programmable since they must be provided in addition to the interface circuit shown, and therefore, are inherently selected by a user for their particular application (i.e. programmed). See column 10, lines 1-5. Therefore, Pasetti anticipates all limitations of the claim.

Claim 2 is limited to *the SLIC of claim 1*, as covered by Pasetti. The two comparators COMP A and COMP B determine two separate characteristics of a transient common mode current on the subscriber line comprising both the tip and ring lines illustrated in figure 2 of Pasetti. Specifically, COMP A determines if the absolute magnitude of the common mode current exceeds a threshold value I_{thr} . COMP B on the other hand determines the sign (i.e. direction of current flow) of the common mode current. When both of these controls are used together to control block (8') of figure 2, COMP A determines whether current limit I_{lim} is to be used or whether current limits I_{lim1} and I_{lim2} are to be used while COMP B determines which amplifier is sourcing and which amplifier is sinking so that in the event that I_{lim1} and I_{lim2} are to be used, appropriate source and sink current limits can be set. See column 9, line 65, through column 10, line 41. In this way, Pasetti "limits both source and sink currents for each of said pair of output amplifiers." Therefore, Pasetti anticipates all limitations of the claim.

Claim 3 is limited to *the SLIC of claim 1*, as covered by Pasetti. As explained apropos the rejection of claim 2, source and sink current limits are generated by block (8') as seen in figure 2 of Pasetti using I_{lim1} and I_{lim2} . These limits correspond to the "at least one programmable current limit" and are used to generate "source current limit"

and a "sink current limit" at output nodes C and D as seen in figure 2. Therefore, Pasetti anticipates all limitations of the claim.

Claim 4 is limited to *the SLIC of claim 3*, as covered by Pasetti. As seen in column 10, lines 23-25, I_{lim1} , which corresponds to the "sink current limit," is greater than the I_{lim2} , which corresponds to the "source current limit." Therefore, Pasetti anticipates all limitations of the claim.

Claim 5 is limited to *the SLIC of claim 4*, as covered by Pasetti. In one example, the source current limit is 15mA and the sink current limit is 30mA. See Table 1. Therefore, Pasetti anticipates all limitations of the claim.

Claim 6 is limited to *the SLIC of claim 1*, as covered by Pasetti. As seen in figure 2, two reference current supplies are used to determine the current limits. One of the current sources corresponds to a source limit while the other corresponds to a sink limit. Because the terms source and sink are terms of art relating to direction of current flow with respect to an arbitrary circuit analysis convention, it is submitted that either current limit can be taken as the source or sink limit. Therefore, Pasetti anticipates all limitations of the claim.

Claim 12 is limited to *the SLIC of claim 1*, as covered by Pasetti. In addition to current limits I_{lim1} and I_{lim2} , the circuit of Pasetti includes DC current limits I_{lim} . These limits limit the "current on the subscriber loop to a DC current limit." See column 10, lines 10-17. Therefore, Pasetti anticipates all limitations of the claim.

Claim 13 is limited to *the SLIC of claim 12*, as covered by Pasetti. It logically follows that if I_{lim1} is greater than I_{lim2} and if the difference between I_{lim1} and I_{lim2} is

greater than I_{thr} which is again greater than I_{lim} , then I_{lim1} is greater than I_{lim} . Note that I_{thr} is necessarily greater than I_{lim} , otherwise the steady state current would trip the threshold current. Therefore, Pasetti anticipates all limitations of the claim.

Claim 14 is limited to *the SLIC of claim 13*, as covered by Pasetti. In one example, the output current limit is 30mA while the DC output is 15mA. See Table 1. Therefore, Pasetti anticipates all limitations of the claim.

Claim 15 is limited to *a subscriber line interface circuit (SLIC) for a subscriber loop*. As shown in the rejection of claim 1, Pasetti anticipates a "SLIC," a "subscriber loop," a "pair of output amplifiers," a "transient output current limit circuit" and a "programmable output current limit." As shown in the rejection of claim 2, Pasetti anticipates limiting both "source currents" and "sink currents." As shown in the rejection of claim 12, Pasetti anticipates a "direct current (DC) loop current limit circuit." Therefore, Pasetti anticipates all limitations of the claim.

Claims 16-19, 25 and 26 are limited to *the SLIC of claim 15* and recite further limitations that are essentially the same as the limitations treated above apropos claims 3-6, 13 and 14, as shown to be anticipated by Pasetti. Therefore, Pasetti anticipates all limitations of the claims.

Claim 35 is limited to *a method for limiting current on a subscriber loop*. The construction of the schematic depicted in figure 2 of Pasetti will inherently require the actions recited in claim 35 and the inherent operation of the schematic once constructed will inherently perform all actions recited in claim 35. In particular, the connected "pair of output amplifiers" (4') and (5') are connected to a "subscriber loop" comprising tip and

ring lines (2') and (2''). At least one current limit is programmed by choosing and connecting at least I_{lim1} to the circuit of figure 2. The currents generated by the amplifiers (4') and (5') are limited on the basis of the programmed current limit I_{lim1} . See column 9, line 65, through column 10, line 41. Therefore, Pasetti anticipates all limitations of the claim.

Claims 36-43 are limited to *the method of claim 35* and recite further limitations that are essentially the same as the limitations treated above apropos claims 3-6, 13 and 14, as shown to be anticipated by Pasetti. Therefore, Pasetti anticipates all limitations of the claims.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WFB
11/28/05



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SUPERVISORY PATENT EXAMINER